DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: WILSON POND

Town: SWANZEY

Maximum depth (m): 4.6

County: Cheshire

River Basin: Connecticut

Latitude: 42°54'02" N

Longitude: 72°15'44" W

Shore configuration: 1.04

Elevation (ft): 476

Shore length (m): 2100

Watershed area (ha): 413.6

Watershed ponded: < 0.10

Pretention coeff.: 0.63

Watershed ponded: < 0.10

Lake type: natural w/dam

BIOLOGICAL:	27 January 1994	14 July 1993
DOM. PHYTOPLANKTON (% TOTAL) #1	NO PHYTOPLANKTON	NET PHYTOPLANKTON
. #2	RESULTS	SPARSE; NO DOMINANT
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		550
CHLOROPHYLL-A (µg/L)		4.01
DOM. ZOOPLANKTON (% TOTAL) #1	NO ZOOPLANKTON	NAUPLIUS LARVA 77%
#2	RESULTS	
#3		
ROTIFERS/LITER		5
MICROCRUSTACEA/LITER		. 84
ZOOPLANKTON ABUNDANCE (#/L)		95
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		4.0 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	3.3	7.1
BACTERIA (E. coli, #/100 ml) #1		1
#2		4
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None Anoxic volume (m³): None

CHEMICAL:			WILSON PO	DND	
·	27 Janua	ary 1994	14 3	July 1993	
DEPTH (m)	1.0	2.5	1.0		3.0
pH (units)	6.1	6.1	7.0		6.8
A.N.C. (Alkalinity)	7.0	9.0	5.9		5.9
NITRATE NITROGEN	0.12	0.25	< 0.02		< 0.02
TOTAL KJELDAHL NITROGEN	0.28	0.37	0.18		0.19
TOTAL PHOSPHORUS	0.006	0.011	0.015		0.014
CONDUCTIVITY (µmhos/cm)	89.8	109.8	90.6		91.8
APPARENT COLOR (cpu)	14	20	24		24
MAGNESIUM			1.04		
CALCIUM			2.8		
SODIUM			11.6		
POTASSIUM			1.03		
CHLORIDE	16	19	19		19
SULFATE	8	9	5		5
TN : TP	67	56	12		14
CALCITE SATURATION INDEX			3.1		

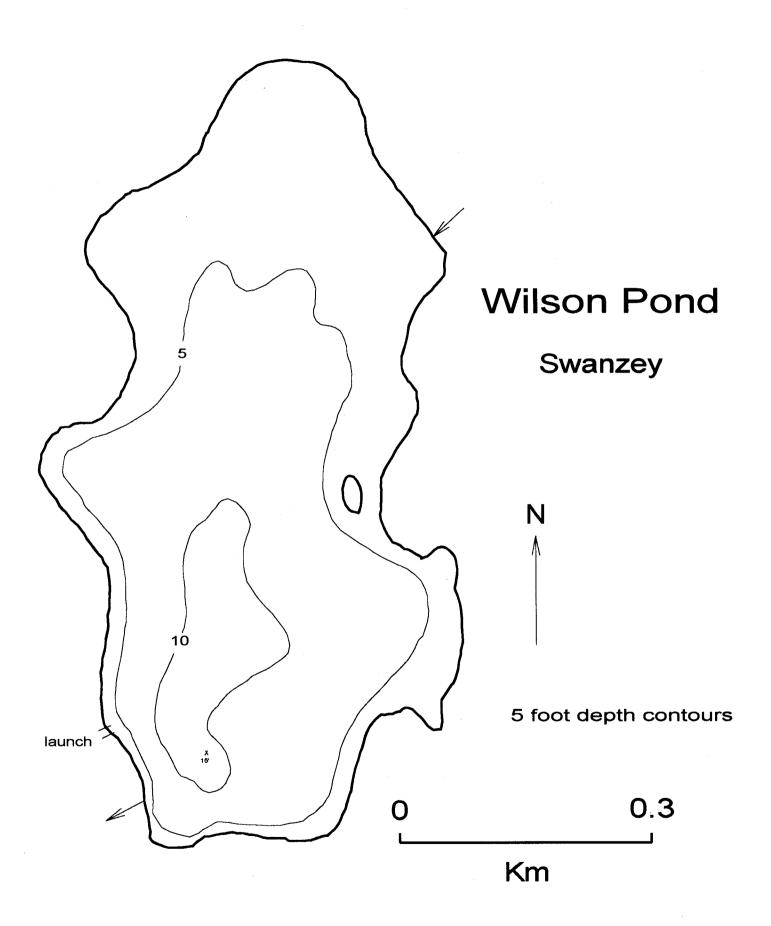
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1993

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	1	3	1	5	Meso.

COMMENTS:

- 1. A.K.A. Wilson's Pond.
- 2. This pond was previously surveyed and classified in 1977. There was no change in classification and little change in water quality. There was a significant decrease in total phosphorus in 1993 but the unusually high value in 1977 was probably not valid. VLAP results for 1992-1994 confirm the 1993 survey value. They also confirm the need for the more frequently collected data that VLAP provides.
- 3. Boat launch was located adjacent to the town beach.
- 4. <u>Cryptomonas</u> (50%) and <u>Chroomonas</u> (30%) were the dominant genera of wholewater phytoplankton.



FIELD DATA SHEET

LAKE: WILSON POND

DATE: 07/14/93

TOWN: SWANZEY

WEATHER: PARTLY CLOUDY; 80'S

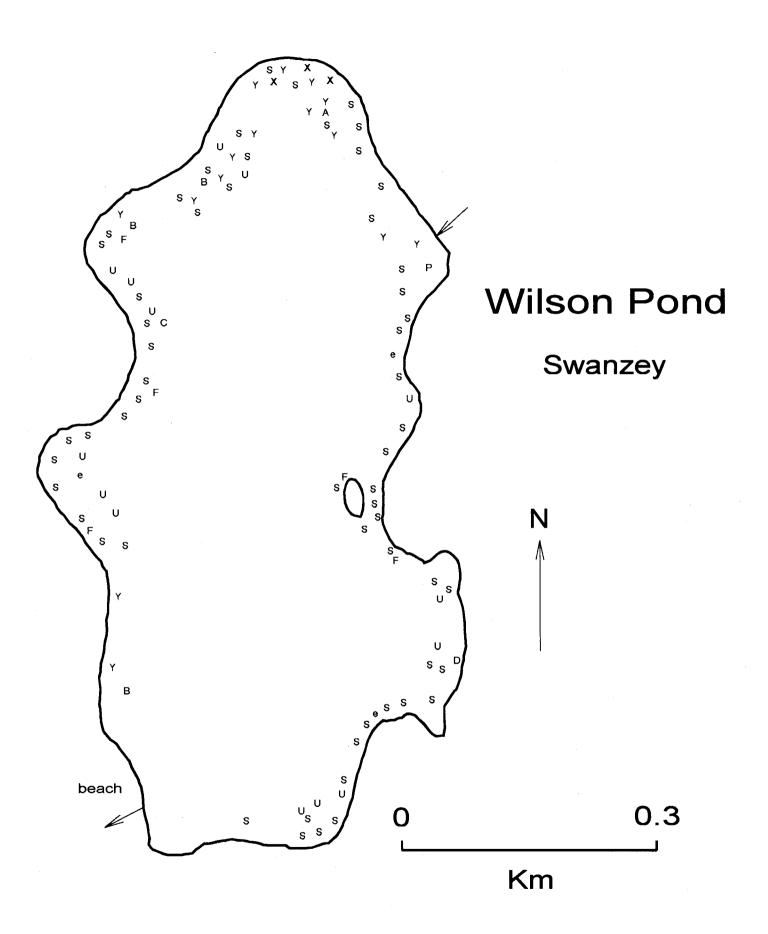
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	27.0	7.4	92 %
1.0	26.5	7.1	87 %
2.0	26.0	7.1	87 %
3.0	26.0	7.1	87 %
3.5	26.0	7.1	87 %
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SECCHI DISK (m): 4.0 VOB COMMENTS:

BOTTOM DEPTH (m): 4.0

TIME: 1215

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAKE: WILSON POND TOWN: SWANZEY DATE: 07/14/93

77	PLANT			
Кеу	GENERIC	COMMON	ABUNDANCE	
S	Sparganium	Bur reed	Common	
U	Utricularia	Bladderwort	Common	
F	Nymphoides cordatum	Floating heart	Sparse	
С	Ceratophyllum demersum	Coontail	Sparse	
В	Brasenia schreberi	Water shield	Sparse	
Y	Nuphar	Yellow water lily	Scat/Common	
P	Pontederia cordata	Pickerelweed	Sparse	
х		Sterile thread-like leaf	Scattered	
A	Potamogeton amplifolius	Bass weed	Sparse	
W	Potamogeton natans	Floating-leaf pondweed	Sparse	
Т	Typha	Cattail	Sparse	
е	Elodea nuttallii	Waterweed	Scattered	
D	Decodon verticillatus	Swamp loosestrife	Sparse	
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OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

- 1. Filamentous green algae were very common around the shore but are not depicted on the map.
- 2. Numerous bryozoans were observed.
- 3. Plants were abundant in the very northern end of the pond.